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Respectfully submitted,

  
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SUBSTITUTE SPECIFICATION**ELECTRONIC TRANSACTION SYSTEM USING A PORTABLE  
PERSONAL DEVICE****Field of the Invention**

This \_\_\_\_\_ The present invention relates to electronic devices, and more particularly, to an electronic transaction system using personal portable transaction devices that ~~can be used for loading~~ load data and ~~communication of information generated from these data to a user.~~ communicate information to a user based upon the loaded data.

**Background of the Invention**

10 \_\_\_\_\_ At the present time there are various electronic transaction systems designed to manage payment of purchases of equipment goods or services, or to control authorization for access to different services. Typically, these systems are based on  
15 electronic cards, and particularly, smart cards assigned personally to the users of initiating these electronic transactions. The card holder ~~then~~ makes transactions either by inserting the card in a reader terminal in the electronic transaction network, or by  
20 placing the card close to a toll terminal or a remote access terminal designed for this purpose.

\_\_\_\_\_ In the first case, the terminal comprises electrical connectors that set up a resistive contact with corresponding contact pins in a micro-circuit on the card, ~~in order~~ to enable data exchanges related to the transaction. In the second case, the card comprises an antenna or an induction loop connected to the chip to make the link with the terminal. Transaction systems operating on this principle of remote data exchanges are often known as "contact free passes". One example is a remote toll card for passing through ~~motorway~~ toll booths without stopping.

\_\_\_\_\_ Regardless of ~~what~~ the means ~~is~~ used to make the electronic transactions (with or without contact), the card or similar equipment cannot communicate useful information to the holder except for a brief message specific to the transaction being ~~done~~ performed. For example, a conventional remote toll card comprises a light emitting diode and/or a beeper to indicate whether or not the toll operation took place correctly. This type of message is qualified in this description as a "non-random message". This term denotes any message type that is pre-ordered according to the use of internal functions in the transaction device or transactions already carried out or being carried out.

\_\_\_\_\_ In other words, the contents of these non-random messages may be predicted by prior knowledge of predetermined operating protocols, and possibly the history of the use of the personal transaction device. For example, "non-random" messages, in particular ~~comprise,~~ include all commands and signals (for example, acknowledgement signals) exchanged between the fixed protocol for transactions, and updated data originating from these transactions in a predictable

manner. These transactions may ~~consist of~~include information about a remaining balance, statistics based on use of the device and any other information provided locally in the portable device such as the time, date,  
5 standard welcome messages, and pre-programmed usage guides, etc.

~~Another objective~~

### Summary of the Invention

An object of the invention is to provide an  
10 electronic transaction system based on the use of a personal portable electronic transaction device, for example, a smart card or similar, for enabling a user to receive various types of information through the card.

15 ~~Consequently, the invention proposes~~ This and other objects, advantages and features are provided by an electronic transaction system between an installed network and personal portable transaction devices used to make electronic transactions through the installed  
20 network. In particular, characterised in that it also the electronic transaction system comprises means of loading random information from the network into personal portable electronic transaction devices, such that this random information can be read from the  
25 personal portable electronic transaction devices.

For the purposes of the invention, "random information" generally ~~comprises~~includes any type of information that is not in the category of non-random information as mentioned above. Therefore, random  
30 information is not predictable from internal operating rules of the transaction network or internal programs in the portable personal device. In particular, it random information may be specific information or

messages of various types originating from  
5 ~~outside~~external the existing transaction system, and  
information added to it ~~in order to have it resent~~for  
resending to personal transaction devices that use the  
system.

          For example, random information may ~~consist~~  
~~of~~include complementary information messages or  
messages related to a service or an object obtained by  
the transaction. Thus, in an application in which the  
10 transaction system is used for the access right to a  
transport network, the random information may be  
composed of messages about the operating state of the  
network, information about directions or transfers to  
be used, promotion messages, information about services  
15 offered, etc. There is not necessarily any ~~thematic~~  
~~relation~~theme or relationship between the random  
information and the transactions, ~~that~~which may ~~consist~~  
~~of~~include general advertising messages, news, games,  
etc.

20           Advantageously, random information can be  
loaded to personal portable electronic transaction  
devices starting from at least one terminal used to  
perform transactions with these personal devices. In  
this way, random information can be loaded during a  
25 transaction.

          Preferably, random information is loaded by a  
"contact free" exchange between the terminal and the  
personal portable electronic transaction device. In  
this case, the transaction and the random information  
30 transfer may be done using a "contact free" exchange.  
However, the invention ~~can~~may also be used for  
transaction terminal with contacts, ~~for example~~such as  
conventional electronic card readers, for example.

A preferred embodiment of the invention includes voice reading means for random and/or non-random information collected or generated by the personal electronic transaction device, ~~t.~~ These means  
5 ~~comprising~~include conversion means integrated in the personal transaction device.

          The voice reading means for information collected or generated by the personal electronic transaction device form a man-machine interface ~~that,~~  
10 which is particularly attractive for electronic transactions. ~~It~~This makes it possible for the blind or almost blind to use electronic transaction devices, whereas conventional payment or electronic control systems are particularly difficult for these persons.

15           The voice function is also advantageous for persons who are normally obliged to put their ~~spectacles~~glasses on or take them off to see information on a screen, or even for anyone who needs information (random or not ~~n~~-random) in badly lit  
20 locations. Furthermore, ~~it can~~the voice function may be used to divulge information to persons with reading problems.

          The voice reading means mentioned above are used to convert a flow of digital signals from any  
25 source, such as a memory or real time transmission, into an audio signal that is perceived by the person receiving the random message as being a message spoken through a loudspeaker or an earpiece.

~~In order to~~ To make the best use of the limited  
30 memory capacity of the personal electronic transaction device, at least some of the information that will be presented in voice form is compressed, ~~for example~~ using data compression according to the MPEG 3

standard, for example, and the voice reading means is provided with data decompression means. This arrangement is also a means of shortening shortens the transmission time, and therefore reducing, reduces the  
5 necessary transmission range for the same quantity of information transmitted in non-compressed form.

          In one preferred embodiment, the data compression only applies to the random information. In this case, the reading means may also comprise voice  
10 synthesis means intended to present non-random information generated within the device or received from a terminal. Obviously, the information (random and/or non-random) may also be presented visually, for example, by means of a display screen with a scrolling  
15 display on the personal device or its a separate welcome device.

          The random information may be input and routed in various ways depending on the shape of the device. In one embodiment, the device comprises two  
20 separable parts composed of a card (such as a smart card) capable of doing electronic transactions independently, and a device into which the card fits for reading random and/or non-random information. Preferably, the card contains the means for reception  
25 of information read by the device into which the card fits, from the network, ~~for example t.~~ These means being may include an antenna and a demodulator, for example.

          In another embodiment, the personal  
30 transaction device is made in a single piece. In this configuration, it may advantageously be integrated in a device with a primary function unrelated to electronic

transactions, ~~for example~~ such as a mobile telephonye  
terminal, for example.

- When the personal transaction device  
according to the invention is functionally integrated  
5 in a mobile telephonye terminal, at least one of the  
following ~~means~~ items in the telephonye terminal  
(provided that they are available) is adapted so that  
it also enables embodiment of the personal transaction  
device:
- 10 —the reception and/or transmission interface by radio  
waves;  
— data storage means;  
— calculation means;  
— audio output means;
- 15 — manual command or data input means;  
— voice synthesis means;  
— the integrated smart card; and  
— the ~~electricity~~ electrical power supply.

#### **Brief Description of the Drawings**

20 Other advantages and characteristics of the  
invention will be clearer after reading the following  
description of embodiments given solely as examples  
with reference to the attached drawings in which:

~~—figure~~ Figure 1 is a simplified block diagram  
25 showing an example of random information ~~transmission~~  
~~relay~~ being relayed via an automatic barrier according  
to the invention, ~~implemented in an automatic barrier;~~  
~~—figure~~

Figure 2 is a simplified block diagram of a  
30 personal electronic transaction device according to a  
first embodiment of the invention;

~~—figure~~



Figure 3 is a perspective view of the personal electronic transaction device ~~according to a first embodiment of the invention~~ illustrated in Figure 2;- and

5 ~~figure~~

Figure 4 is a simplified block diagram of a personal electronic transaction device according to a second embodiment of the invention.

### Detailed Description of the Preferred Embodiments

10 The example embodiments of this invention will be described in the context of a public ~~transport~~ transportation network, such as a ~~metro~~ subway, that uses a personal portable electronic transaction device ~~that is used as a means of payment for public~~  
15 ~~transport~~ transportation and as a ~~transport~~ transportation ticket when passing through control barriers. This same device may also be used as an electronic wallet in different shops. In this part of the description, it will be assumed that the  
20 personal transaction device is a smart card (denoted ~~"as a card" in the following~~ below), identified as reference 2 in ~~f~~ Figure 1.

The card 2 may be used in association with a device in which it can be fitted, ~~for example~~ such as a  
25 card case comprising elements capable of reading and/or management of data ~~and that, which~~ will be described later in greater detail below.

~~Thus, f~~ Figure 1 shows a control barrier 4 in the form of a turnstile. The barrier 4 comprises electronic  
30 equipment (not shown) designed for two separate functions:

i) ~~\_\_\_\_\_~~ authorization to pass when a valid card 2 is presented in its checking area, and

ii) ~~\_\_\_\_\_~~ transmission of random messages to the card.

\_\_\_\_\_ The first function is known in itself, and is  
5 used for example in ~~motorway~~ toll booths as mentioned above. In the example, the control is made without contact, ~~i.~~ In other words, the validity state of the card 2 is verified by a two-directional remote data exchange through a radio wave or infrared link  
10 ~~starting~~ originating from a connection interface 6.

\_\_\_\_\_ The technical means necessary for this first function are well known to the expert in the subject, and therefore, will not be described further in this document for reasons of conciseness.

15 \_\_\_\_\_ The second function is combined with the first function such that the card 2 can be downloaded through the same connection interface 6 with random information so that this information can be made available to its holder either in real time or  
20 afterwards. Thus, the barrier control 4 and downloading of random data may be done together as the card 2 is passed.

\_\_\_\_\_ In accordance with the definition given in the introduction, ~~in this case~~ the random information  
25 may include all information external to management of the transaction (in this case the conditional crossing of the barrier 4), ~~for example~~ such as information concerning directions and transfers to be taken, for example, which may be determined based on a destination  
30 station read from the card, and the state of traffic ~~state~~ (. This information may include signalling of occasional technical problems, the time before the next train, the station at which it is recommended that

passengers should get off for a special event or if a station is closed, promotions, advertising messages, etc.)-

~~It will be noted that random~~ Random information can be  
5 loaded intelligently, namely starting from data  
contained in the personal device or the programming of  
this device. The random information is initially  
received through the connection interface 6  
~~starting~~ originating from an information ~~centre~~ center 8  
10 through a radio link (or ~~wire~~ a hardwired link) at a  
transmission frequency F1 that is not the same as the  
frequency F2 used for exchanging data with the card 2.  
The connection with the ~~centre~~ center 8 may be set up by  
relays and/or by cables. As a ~~variant~~ variation, the  
15 random information may be loaded by inserting memory  
modules in the control barrier equipment 4.

Figure 2 is a simplified block diagram of a  
personal electronic transaction device made from a  
smart card 2, and a device into which it fits, which  
20 may be in the form of a card case 10 ~~in this case~~.  
The various functional elements are shared between the  
card 2 and the case 10.

In the example, the card 2 comprises a  
microcircuit in the form of a chip 12 provided with a  
25 set of contact pins 14 enabling input and output of  
data and power supply voltages to and from the chip 12  
and the case 10, or a transaction terminal with  
contacts. In this way, the card 2 can operate  
independently with a payment terminal or a terminal  
30 providing a conventional service. ~~It may be a~~ A multi-  
function card ~~that~~ can also be used as an electronic  
wallet, a point's card, and an identification card,  
etc., in different electronic transaction networks.

The chip 12 may also contains a memory area for the temporary storage of data before their transfer.

Card 2 also comprises contact free data exchange means based on a radio antenna 16 functionally  
5 connected to the chip 12. In particular, ~~this~~the antenna 16 receives random data transmitted in modulated form, for example, from the connection interface 6 (fFigure 1). Consequently, the microcircuit 12 comprises a demodulator with an input connected to the antenna 16,  
10 and an output supplying binary data extracted from the modulated signal. The techniques for modulation (at the connection interface 6) and demodulation (at the micro-circuit 12) enable bi-directional communication of digital data and are known in themselves, and will  
15 not be described here for reasons of conciseness.

The case 10 comprises a housing 18 in which the card 2 and a contactor assembly 20 fitted with contact pins 22 can be inserted. These contact pins 22 are laid out so that they are electronically connected  
20 to the corresponding pins 14 of the card 2 when the card is inserted. A battery 24, ~~that~~which may be ~~but~~ ~~is not necessarily~~ rechargeable, is contained in the case 10 to power the entire set of functional elements, including the chip 12 ~~of the card~~ when the card is  
25 housed in the case. For more clarity, all functional elements of the box 10 that makes up the case (and that will be described ~~later~~below) are shown diagrammatically outside this box.

The assembly is centered around a  
30 microprocessor 26 designed to execute a program stored in a memory 28, ~~in this case made in the form of.~~ The memory 28 may be a read only memory (ROM). ~~Thus,~~  
~~the~~The microprocessor is capable of managing

transactions (acknowledgement of orders, purchasing, reservations, total number of loyalty points, etc.) with a terminal. The microprocessor 26 also exchanges occasional data with a random access memory (RAM) 30.

5 ~~These~~ This data ~~comprise~~ includes the state of the accounts and the history of accounts managed for the different services, and is also used for storage of data about random and non-random information.

Random and non-random information is sent to  
10 the user of the case 10 in voice form, through an audio decompression unit 32 and a voice synthesis unit 34 respectively. These units 32, 34 are controlled by the microprocessor 26 to format data from the RAM 30 so that it can be represented in useable form by an audio  
15 module 36. The audio module 36 ~~comprises one~~ a digital-analogue conversion stage and an amplification stage. ~~t.~~ The amplification stage ~~being~~ is adjustable in volume by a potentiometer 38 accessible by the user. The audio module 36 controls outputs for a mini-  
20 loudspeaker 40 and an earpiece connector 42.

The case 10 also comprises a display device  
44 connected to the microprocessor 26 to present random and/or non-random information to the user. The various functions offered by the device may be controlled using  
25 a manual control unit, in this case in the form of a keypad 46 associated with a logical interface. These functions include ~~particularly~~ on/off commands, input of data related to a transaction (digital data), and the reading of random and/or non-random information.

30 ~~We will now describe an~~ An example of operation of the card 2 and the case 10 assembly will now be described. The configuration of the assembly enables the use of the card 2 alone (in other words ~~outside its~~ without

the case 10), as a conventional smart card. In this ~~case~~situation, the card 2 alone can be connected to a contact terminal to make various purchases, credit chargingcharges, accounting and updating transactions, etc.

\_\_\_\_\_ In this example, the card 2 may also be used alone to perform all types of transactions related to its use as payment mode, for accounting and as a ~~transport~~-ticket with respect to the ~~transport~~transportation network. When the card 2 is placed in its case 10, the personal transaction device formed by the combination of the card 2 and the case ~~10~~ also enables loading and restitution of random information.

\_\_\_\_\_ The random information routing sequence system will now be described. Initially, the information is generated at the information ~~centre~~center 8, and is then distributed through the radio (or wire) link at a frequency F1 to the control barriers 4 and other terminals of the information system to be ~~stored in it~~therein. When a personal transaction device 2, 10 is presented in the active area of the barrier 4, the connection interface 6 transmits all or a selected part of this random information to an antenna 16 of the card 2 on a signal modulated at a frequency F2.

\_\_\_\_\_ This transmission may be done before, after or in time-sharing with respect to the non-random data exchange related to the transaction (which in this case is the counted authorization to pass). The range of the transmission at the frequency F2 from the connection interface 6 is sufficient such that the personal transaction device 2, 10 can continue to

receive information for a few minutes after passing, so that relatively long files can be loaded correctly.

The modulated signal received by the antenna 16 during the transmission is processed by the demodulator in the  
5 microcircuit 12 to extract digital data about random information thus loaded.

          In the example, the above-mentioned digital data are firstly compressed before they are transmitted through the connection interface 6. Compression is  
10 then done using the standard protocol known as "MP3" or an equivalent protocol. This standard is particularly suitable for transmission of digital sound files ~~(e.g., music and voice)~~.  
e.g., music and voice).

          The compressed digital data thus received can  
15 be temporarily stored in a buffer memory area in the microcircuit 12 in the card 2 before being transferred to the different elements of the case 10. ~~They can~~ The data may also be transmitted directly towards elements of the case 10. In both cases, the compressed data are  
20 transmitted from the card 2 to the case 10 through contacts 12 and 24 ~~to which will then~~ be loaded into the memory 30 under the control of microprocessor 26.

          Random information is read either automatically, or under the control of the user  
25 ~~transmitted by~~ selection of a button on the manual controls unit 46. In the latter case, the microprocessor 26 may be designed to transmit a sound signal indicating that information is loaded ~~on~~ on for the loudspeaker 40 or ~~on~~ on for the earpiece 42. This signal  
30 may be a pre-programmed spoken message produced using the voice synthesis unit 34 or a particular dial tone.

          When the random information has been read, the corresponding data are unloaded from the RAM 30 and

transmitted to the decompression unit using the MP3 standard. Decompression at this unit may be done by a program executed at least partially by the microprocessor 26.

5                  Decompressed data are transmitted in the form  
of ~~a flow~~ of binary signals to the audio module 36,  
where they are transformed into a voice message. At  
the same time, the microprocessor 26 can control  
presentation on the display device 44 of the same  
10      message or complementary information, that can also be  
extracted from data received from the card 2.

          When the personal electronic transaction  
device emits non-random information in the form of a  
voice message, ~~for example~~ such as an acknowledgement  
15      indication, an indication of the amount of the  
available credit or internally managed data such as the  
date and time, ~~etc.~~ for example, the voice synthesis  
unit 34 processes data about this information. In this  
case, the data in question that may originate from the  
20      ROM 28, the RAM 30 or the card 2, are transmitted to  
the voice synthesis unit 34 under the control of the  
microprocessor 26.

          In this case, the data are specifically  
formatted to reproduce their contents in voice form  
25      using techniques known in digital recording. Data  
output from the voice synthesis unit 34 are put into  
the same format as data output from the decompression  
unit 32, and in the protocol used for building up  
binary words. Consequently, these data are perceived  
30      transparently by the audio module 36 that transmits  
them in audible form to the loudspeaker 40 or the  
earpiece 42.



\_\_\_\_\_ Figure 3 is a perspective view of the personal transaction device ~~consisting of~~ that includes the card 2 and its case 10. The case 10 is provided with a mini loudspeaker 40, manual controls in the form of a numeric keypad 46 and a display 44, on the same face. The volume adjustment potentiometer 38 and the earpiece connector 42 are located on one side of the case 10.

\_\_\_\_\_ There is a slit 48 on one edge 10a of the case into which the card 2 fits such that the contacts 14 and 22 of the card and the connector 20 of the case are engaged in it when the card is entirely or partly placed in the case. As a variant variation, the personal transaction device can be made as a single piece. In this case, a box resembling the case 10 also permanently contains the functional elements of the card 2, and particularly its antenna 16. The microcircuit 12 forming the chip of the card may then be functionally integrated in the microprocessor 26.

\_\_\_\_\_ Figure 4 shows a second embodiment of the invention in the form of a simplified block diagram, in which the personal transaction device is included in a mobile telephony terminal (handset). In this figure, elements with functions identical to or corresponding to those in ~~Figures~~ Figures 2 or 3 have the same references and will not be described again, for reasons of conciseness.

~~It will be noted that a~~ A mobile telephony terminal conventionally comprises a keypad, a display, a microprocessor, a RAM and ROM, means of sending and receiving information by radio, and an audio output on an earpiece. This type of terminal also comprises a smart card programmed as a function of services

allocated to the subscriber of the telephone network and is personalized by an access code. All these elements may be adapted to functions like those described for a personal electronic transaction device  
5 also enabling the reception and broadcasting of random sound information.

          Thus, in the scheme shown in ~~f~~Figure 4, existing elements of the mobile terminal ~~are used~~ identified in the form of blocks similar to those in  
10 ~~f~~Figure 2, are used so that they can also perform functions related to transactions with the possibility of processing random information, ~~namely:~~ These elements are as follows.

~~the~~ The microprocessor 26, ROM 28 and RAM 30  
15 assembly are programmed to operate the telephonye, and the interface with the user is configured so that it can also perform the functions described with reference to ~~f~~Figure 2, ~~t.~~ The manual controls 46 ~~that~~ are accessible through the telephone keypad, ~~these controls~~  
20 ~~being~~ and are operated by a specific button or by inputting a code, ~~t.~~ The display 44, which may selectively display information related to the telephonye, transactions or random information;  
~~the~~

25 The audio module 36 with the volume control 38 ~~that~~ selectively transmits the audio channel of the telephonye system or voice synthesis units 34 or data decompression units 32 to the earpiece or to the loudspeaker 42 ~~selectively, to transmit.~~ Both random  
30 and non-random information may be respectively ~~the~~ transmitted. The smart card 2 is included into the terminal, that also comprises the modules necessary for operation of the personal transaction device,

either by integrating them on the same chip~~7~~ or by providing several chips respectively with appropriate reading means~~7~~the.

The radio interface 60~~7~~comprising comprises  
5 reception means for radio telephone communication starting from an antenna 62~~7~~and demodulation means~~7~~ that may be adapted to integrate functions of the demodulator integrated in the chip 12~~7~~and~~t~~The battery 24 ~~that powers~~the elements necessary for the  
10 telephony~~e~~e, and elements necessary for use of the personal electronic transaction device.

The personal electronic transaction device in the form of a mobile telephony~~e~~e handset~~adapted~~ as shown in ~~f~~Figure 4 is used in approximately the same  
15 way as the device in ~~f~~Figure 2. However, for practical reasons, all transactions will be made using contact free exchanges with the antenna 62~~7~~For example, when the user passes a control barrier 4~~7~~like that shown in ~~f~~Figure 1, the connection interface 6 will exchange the  
20 same information and will also load random information which may be listened to on the earpiece immediately or later when specifically requested.

Similarly, the handset ~~can~~may be used as an electronic wallet with contact free terminals enabling  
25 purchases or recharges.The frequencies used for contact free transactions may be the same as the frequencies used for mobile telephony~~e~~s, for example, 900 MHz~~7~~or 1800 MHz~~7~~or they may be different~~if possible~~ depending on the radio interface 60.

30 Obviously, the personal transaction device may be used in different forms (pager,~~speaking~~ clock, computer, etc.) while remaining within the framework of the invention as claimed.

CLAIMS

THAT WHICH IS CLAIMED IS:

\_\_\_\_\_1. Electronic transaction system between an installed network (4, 6, 8) and personal portable electronic transaction devices (2, 10) that can be used to make electronic transactions through the installed  
5 network, characteriszed in that it also comprises means of loading (6, 16, 60, 62) random information through the network into personal portable electronic transaction devices (2, 10) enabling users to read and/or listen to this random information from personal  
10 portable electronic devices.

\_\_\_\_\_2. System according to claim 1, characteriszed in that the system for loading random information onto personal portable electronic transaction devices (2, 10) is loaded from at least one  
5 terminal (4, 6) used to carry out transactions with these personal devices.

\_\_\_\_\_3. System according to claim 1 or 2, characteriszed in that the random information is loaded by a "contact free" exchange between the terminal (4, 6) and the personal portable electronic transaction  
5 device (2, 10).

\_\_\_\_\_4. System according to anyone of claims 1 to 3, characteriszed in that the personal portable electronic transaction device (2, 10) comprises voice reading means (26, 32-42) for audible reproduction of  
5 random and/or non-random information collected or

generated by this personal electronic transaction device.

5. System according to claim 4, characterized in that at least some of the information intended to be presented in voice form is compressed, for example using data compression according to the MPEG 3 standard, the voice reading means (26, 32-42) comprising data decompression means (32).

6. System according to claim 5, characterized in that data compression only concerns random information.

7. System according to anyone of claims 4 to 6, characterized in that the voice reading means (26, 32-42) also comprise voice synthesis means (34) intended to present non random information generated in the personal portable electronic transaction device (2, 10) or received from a terminal (4, 6).

8. System according to anyone of claims 1 to 7, characterized in that the personal portable electronic transaction device (2, 10) also comprises display means (44) to present random and/or non-random information.

9. System according to anyone of claims 1 to 8, characterized in that the personal electronic transaction device (2, 10) comprises two separable parts composed of a card (like a smart card) (2) used to make electronic transactions independently and a

device (10) in which the card can be fitted for the reproduction of random information.

          10. System according to claim 9, characterized in that the card (2) includes means (12, 16) for the reception of information intended to be read by the device (10) into which the card fits,  
5 through the network (4, 6, 8).

          11. System according to anyone of claims 1 to 8, characterized in that the personal electronic transaction device is made in the form of a single piece (figure 4).

          12. System according to claim 11, characterized in that the personal electronic transaction device is built into a device with a primary function not related to electronic  
5 transactions, for example a mobile telephony terminal (figure 4).

          13. System according to claim 12, characterized in that the personal electronic transaction device is functionally integrated into a mobile telephony terminal, at least one of the  
5 following means of the mobile telephony terminal being adapted so that it also enables embodiment of the personal transaction device:

          -the reception and/or transmission interface by radio waves (60);

10           -the data storage means (28, 30);

          -the calculation means (26);

          -the audio output means (36, 38, 40, 42);

- manual command or data input means (46);
- the voice synthesis means (34);
- 15           -the integrated smart card (2); and
- the electrical power supply (24).

          14. Personal portable electronic transaction device (2, 10) intended for the electronic transaction system according to anyone of claims 1 to 13, characteriszed in that it comprises means (16) of  
5 reception of the said random information and means (32-  
- 44) for the user to read this random information.

          15. Device according to claim 14, characteriszed in that the said reading means also comprise means (32 - 42) of reproducing random information in audible form.

          16. Device according to claim 14 or 15, characteriszed in that it comprises means of informing the user about the reception of random information and means of enabling the user to control reading and/or  
5 listening to this random information.

          17. Device according to anyone of claims 14 to 16, characteriszed in that it is included in a case (10) of an electronic transaction card (2).

          18. Device according to anyone of claims 14 to 16, characteriszed in that it is included in a device with a primary function unrelated to electronic transactions.

19. Device according to claim 18,  
characterisszed in that the primary function of the  
device unrelated to electronic transactions is a mobile  
telephony terminal (figure 4).



ABSTRACT OF THE DISCLOSURE

**ELECTRONIC TRANSACTION SYSTEM USING A PORTABLE  
PERSONAL DEVICE**

Abstract of the Disclosure

           A ~~T~~ransaction system is used to make electronic transactions between an installed network ~~(4, 6, 8)~~ and portable personal devices ~~(2, 10)~~. It  
5 ~~also comprises means (6, 16, 62) of loading~~ The transaction system loads random information into the personal portable devices ~~(2, 10)~~ through received from the network, so that these random messages can be read or listened to using by a user of these personal  
10 portable devices. These random information may be of any type and does not have to be related to ~~the~~ a pre-determined protocol for supporting the ~~purposes of~~ electronic transactions. Random information ~~transfers~~ may be transferred from the network to the  
15 portable personal ~~transaction~~ devices ~~(2, 10)~~ may be ~~done~~ using at least one terminal ~~(4, 6)~~ that is also used ~~to make~~ for performing the electronic transactions with ~~these personal devices.~~

~~Figure 2~~

